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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,954	02/11/2002	Hiroo Arikawa	2002_0228A	2375

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WASHINGTON, DC 20006-1021

EXAMINER
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VORTMAN, ANATOLY

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/068,954

Applicant(s)

ARIKAWA ET AL.

Examiner

Anatoly Vortman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-8 and 10-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-8, 10-12 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 13-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Amendment*

1. The submission of the amendment filed on 02/23/04 is acknowledged. At this point claims 1-4, and 9 have been cancelled, claims 5-7, and 10 have been amended and new claims 13-25 have been added. Thus, claims 5-8, and 10-25 are pending in the instant application.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5-7, 10, and 23-25, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by US/1,377,398 to Conrad.

Regarding claims 5-7, 10, and 23-25, Conrad disclosed (Fig. 1-9) precisely identical fuse structure as recited in the claims, including split casing forming a main body (A) comprising split members (B, B) and recessed portions provided on the split member side surfaces in the vicinity of the end portions of said split members (B, B), wherein said recesses are extending to the joint end surfaces of the main body (A) in the vicinities of the respective end portions of the side surfaces of said split members (B,B), forming a columnar configuration of said main body (A), wherein conductive cap terminals (E), each having projections (Fig. 7) are fitted on the

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respective end portions of the main body (A) so as to allow said projections to fit into said recessed portions (Fig. 4, 6), and a fusible member (C) deposited in a cavity (2) formed by said split members (B, B) and connected to said conductive cap terminals (E), wherein said split casing (A) includes a pair of openings formed in said joint end surfaces (inherently, since the ends (C') of the fusible member (C) are protruding out of the casing (A) as clearly shown on Fig. 4 and 9) and the opposite ends (C') of said fusible member (C) extend through said openings and onto said first and second recesses (Fig. 4 and 9).

Regarding the connection method (i.e. welding) and the time of connection of the projections to the conductive cap terminals recited in claims 7 and 10, please note, that the method of forming the device is not germane to the issue of patentability of the device itself. Even though the claim is limited by and defined by the recited process (i.e. welding), the determination of patentability of the product is based on the product itself, and does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore, these limitations (i.e. welding and time of connection) have not been given patentable weight.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conrad ('406) in view of US/5,214,406 to Reese et al., (Reese).

Regarding claims 8, 11, and 12, Conrad disclosed all of the claims limitations as apply to claims 5, 6, and 7, respectively, but did not specify that said main body is made of ceramic material.

Reese disclosed a fuse (Fig. 3) having a main body (10) made of ceramic material (column 5, lines 63+).

Since inventions of Conrad and of Reese are from the same field of endeavor, the purpose of the ceramic material used for fabrication of the main body of Reese would be recognized in the invention of Conrad.

It would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to use ceramic material for fabrication of the fuse main body of Conrad as taught by Reese, in order to enhance insulation and arc-quenching properties of the fuse of Conrad.

Alternatively, the Official Notice is taken of the fact that ceramic materials have been notoriously known and widely used in the fuse art at the time the invention was made for fabrication of electrically insulative components of fuses, specifically for making fuse housings.

Therefore, it would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to use ceramic material for fabrication of the fuse housing of Conrad, since it has been held to be within the general skill of a worker in the art to select a

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known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### ***Allowable Subject Matter***

6. Claims 13-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:  
regarding claims 13-16, claim 13 recites:

“at least one split member is spaced apart from each of said two split member end portions”;

regarding claims 17-22, claim 17 recites: “two cut-out portions”.

The aforementioned limitations in combination with all remaining limitations of the respective claims are believed to render claims 13-22 patentable over the art of record.

### ***Response to Arguments***

7. Applicant's arguments filed with the amendment have been fully considered but they are not persuasive.

Claims as amended continue to read on Conrad ('398) device. The amendments did not change the scope of the rejected claims. The main thrust of the Applicant's arguments is

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directed to the assumption that recesses of Conrad do not extend to the joint end surfaces of the fuse body. To the contrary, the Examiner believes that said recesses do extend to the joint end surfaces since said end surfaces are the portions of said recesses (i.e. formed by said recesses) as clearly shown on Fig. 4 and 6.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg can be reached on 571-272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anatoly Vortman  
Primary Examiner  
Art Unit 2835

AV.

A handwritten signature in black ink, appearing to read 'A. Vortman', followed by a long horizontal line.